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10/658,631	09/08/2003	Naoyuki Sato	SONY-26700	3451

7590 05/13/2008  
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EXAMINER
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HOANG, HIEU T

ART UNIT	PAPER NUMBER
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2152

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/07/2008 has been entered.
2. Claims 1-25 are pending.

### ***Response to Arguments***

3. Applicant's arguments filed have been fully considered but they are not persuasive.

First, applicant repeatedly argues that the prior art does not teach: “the messages between the one or more synchronization applications and the interface layer are independent of a protocol used between the interface layer and the synchronization protocol stacks” and argues on the inherency of a synchronization protocol stack. The examiner respectfully traverses. The prior art does disclose “one or more synchronization protocol stacks” as a plurality of synchronization protocol such as HTTP, SyncML, WebDAV, SOAP and ebXML (Ong, [0143]); whereas the application also uses SyncML, WebDAV as synchronization protocols (application, fig. 4). At least one synchronization protocols inherently exist in a protocol stack of the network device that supports the protocols (see support in Ericsson, SyncML Sync Protocol, version

1.0.1, section 1.1, fig. 1, SyncML I/F is the interface layer, SyncML adapters communicating to each other on a synchronization layer with SyncML synchronization protocol (presentation layer of a OSI stack), coupled to HTTP/WSP/OBEX or the network layer). Furthermore, Ong discloses a generic API that comprises a plurality of converting and merging plug-ins (for synchronization), wherein default plug-ins can be provided ([0139], or standard plug-ins for standard synchronization can be provided). In [0133] lines 14-18, Ong discloses that a plug-in is independent of an application (plug-ins can be updated dynamically at runtime independently of an application). Therefore, application communications with the API is independent of the synchronization scheme (converting and merging modules) provided by the API, reading on “the messages between the one or more synchronization applications and the interface layer are independent of a protocol used between the interface layer and the synchronization protocol stacks”. Note that the claimed “a protocol” is not referred the synchronization protocol, e.g., in limitation c) of claim 1. So it can be read as any protocol. Finally, a protocol is not used between layers of a protocol stack, but between same layers of two protocol stacks. It is a primitive that communicates between protocol layers (dictionary definitions of protocol, and abstract of US 6,614,807 for interlayer primitive). Applicant’s use of “a protocol used between the interface layer and the synchronization layer” is vague and indefinite.

4. Second, applicant argues that Ong teaches away from the invention. In response, see *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004) [However, “the prior art’s mere disclosure of more than one alternative does not

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constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed....”]. In this case, there is no disclosure, teachings and/or suggestions in Ong that would enable one of ordinary skilled in the art to conclude that Ong avoids the plug-ins to be provided in a default package of conventional synchronization protocols. On the contrary, Ong discloses just that (see Ong, [0139], default plug-ins, [0143], conventional synchronization protocols SyncML, WebDAV). So conventional modules can be provided to the API as a default package for converting/merging documents between applications. Ong discloses that a plug-in is independent of an application (plug-ins can be updated dynamically at runtime independently of an application). Therefore, application communications with the API is independent of the synchronization scheme (converting and merging modules) provided by the API. Document format converting between the application layer and the API is independent from the synchronization protocol, which can be any one of already available synchronization protocols: SyncML and/or WebDAV ([0143]).

5. The examiner respectfully traverses the arguments on U.S.C. 103 rejections for the same rationale given above.

***Claim Objections***

6. The claims are objected to because the lines are crowded too closely together, making reading difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).
7. Claims 15 and 21 recite "the network of device." This phrase should be "the network of devices." Applicant is required to check for similar errors in rest of the claims.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
9. Claims 21-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Consider claim 21, for example, the claim recites an apparatus ... comprising: means for sending and receiving messages and means for generating and receiving communication... It is believed that these means are software modules that communicate between layers in fig. 3 and 4 of the specification. Therefore, it is vague and indefinite that the apparatus only comprise software means alone. Correction is required.
10. Claims 1-7 are rejected for the same rationale as in claim 21. A device cannot comprise software alone.

***Claim Rejections - 35 USC § 101***

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 21-25 are rejected under 35 U.S.C. 101 the claimed invention is directed to non-statutory subject matter. Based on the rationale given in the 35 USC § 112 rejection above, the claimed apparatus is software per se, and is therefore non-statutory.

13. Claims 1-7 are rejected for the same rationale as in claim 21.

***Claim Rejections - 35 USC § 103***

14. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

15. Claims 1-5, 6-13, 15-18 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ong et al. (US 2003/0182450, hereafter Ong), in view of Ericsson et al. (SyncML Sync Protocol, hereafter Ericsson)

16. For claim 15, Ong discloses a method of providing an interface to one or more synchronization applications resident within a first device coupled to a network of devices (abstract), the method comprising:

- sending and receiving messages to and from the one or more synchronization applications through an interface layer to one or more synchronization protocol,

to synchronize data between the first device and at least one other device within the network of devices ([0046] lines 7-10, synchronization client application, [0139], API interface between applications and synchronization plug-in modules for synchronization tasks, [0143] lines 1-9, a user client synchronizes with a server or other devices using an synchronization protocol such as SyncML or WebDAV),

- wherein the messages between the one or more synchronization applications and the interface layer are independent of a protocol used between the interface layer and the synchronization protocols ([0139], communications between the application layer and the API does use not a protocol and is independent of synchronizing protocols such as SyncML and WebDAV, [0133] lines 14-18, a plug-in is independent of an application because plug-ins can be updated dynamically at runtime independently of an application. Application communications with the API is independent of the synchronization scheme (converting and merging modules) provided by the API or a synchronization protocol); and
- generating and receiving communications at the interface layer to complete data synchronization between the first device and the at least one other device within the network of device ([0139], API for document conversion, differencing, and merging of documents created or edited on more sophisticated devices for synchronizing documents of applications between devices, [0143], supporting a variety of synchronization protocols such as SyncML, WebDAV).



Ong does not explicitly disclose one or more synchronization protocol stacks or a synchronization layer.

However, Ericsson discloses the same (fig. 1, SyncML adapter is the synchronization protocol stack or synchronization layer between interface layer I/F and transport layer)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Ericsson to apply the framework of Ericsson in order to develop a synchronization method supporting a plurality of synchronization protocols as one described by Ong.

17. For claim 21, Ong discloses an apparatus for providing an interface to one or more synchronization applications resident within a first device coupled to a network of devices (abstract), the apparatus comprising:

- means for sending and receiving messages to and from the one or more synchronization applications through an interface layer to one or more synchronization protocols, to synchronize data between the first device and at least one other device within the network of devices ([0139], API interface between applications and plug-in modules for synchronization tasks, [0143] lines 1-5, synchronization protocols, lines 5-9, a user client synchronizes with a server (or some other devices) using an email protocol), wherein the messages between the one or more synchronization applications and the interface layer are independent of a protocol used between the interface layer and the

synchronization protocols (Ong, [0139], an application programming interface API is not a protocol and is independent of synchronizing protocols such as SyncML and WebDAV, [0133] lines 14-18, a plug-in is independent of an application (plug-ins can be updated dynamically at runtime independently of an application). Application communications with the API is independent of the synchronization scheme (converting and merging modules) provided by the API or a synchronization protocol); and

- means for generating and receiving communications at the interface layer to complete data synchronization between the first device and the at least one other device within the network of device (Ong, [0139], API for document conversion, differencing, and merging of documents created or edited on more sophisticated devices for synchronizing documents of applications between devices, [0143], supporting a variety of synchronization protocols such as SyncML, WebDAV).

Ong does not explicitly disclose one or more synchronization protocol stacks or a synchronization layer.

However, Ericsson discloses the same (fig. 1, SyncML adapter is the synchronization protocol stack or synchronization layer between interface layer I/F and transport layer)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Ericsson to apply the framework of Ericsson in order to develop a synchronization method supporting a plurality of synchronization protocols as one described by Ong.

18. For claims 16 and 22, the claims are rejected as in claims 15 and 21. Ong-Ericsson further discloses the synchronization application is selected from a group consisting of Personal Information Manager (PIM) sync, contents distribution, and contents upload (Ong, [0005] lines 9-18, PIM, [0037], [0038], downloading and uploading synchronizations are possible).

19. For claims 17 and 23, the claims are rejected as in claims 15 and 21. Ong-Ericsson further discloses the interface layer is an application programming interface (API) (Ong, [0139]).

20. For claims 18 and 24, the claims are rejected as in claims 15 and 21. Ong-Ericsson further discloses the interface layer is protocol independent (Ong, [0139], an application programming interface API is not a protocol).

21. For claim 20, the claim is rejected as in claim 15. Ong-Ericsson discloses the communications generated at the interface layer are sent to a network layer via one synchronization protocol within the first device, and communications received at the interface layer are received from one synchronization protocol stacks via the network layer (Ericsson, fig. 1, at the sending side, data goes from the interface layer (SyncML I/F) to synchronization layer (SyncML adapter) to the network layer, and vice versa at the receiving side).

22. For claim 1, Ong discloses a first device to synchronize data with a second device (fig. 1B, server and small device synchronizing), the first device (server) comprising:

- one or more applications (fig. 2, server 102 contains office applications, [0028]-[0030], sound, video, and word processing applications);
- a network layer coupled to interface with the second device ([0031] lines 12-16, network layer between the server and the small device, [0038] lines 19-21, HTTP or XML network layer);
- synchronization protocols to provide a synchronization protocol between the first device and the second device ([0143] lines 1-5, synchronization protocols, lines 5-9, a user client synchronizes with a server (or some other devices) using an email protocol); and
- an interface layer coupled to communicate with the one or more applications and the synchronization layer to provide generic synchronization communications between the one or more applications and the synchronization layer ([0139], an application programming interface API to communicate with the documents (or applications) and the synchronization plug-in modules (synchronization layer, [0143] lines 1-5, SyncML and WebDAV synchronization protocols); wherein the messages between the one or more synchronization applications and the interface layer are independent of a protocol used between the interface layer and the synchronization protocol stacks (Ong, [0139], communications between

the application layer and the API does use not a protocol and is independent of available synchronizing protocols such as SyncML and WebDAV);

Ong does not explicitly disclose a synchronization layer coupled to the network layer and the synchronization layer consists of synchronization protocol(s).

However, Ericsson discloses a synchronization layer coupled to the network layer and the synchronization layer consists of synchronization protocol(s) (section 1.1, fig. 1, SyncML I/F is the interface layer, SyncML adapter is the synchronization layer, coupled to HTTP/WSP/OBEX or the network layer).

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Ericsson to apply the framework of Ericsson in order to develop a synchronization method supporting a plurality of synchronization protocols as one described by Ong.

23. For claim 8, Ong discloses a network comprising one or more network devices (fig. 2, a server, a workstation, a small device); and an application device comprising:

- one or more applications (fig. 2, server 102 contains office applications, [0028]-[0030], sound, video, and word processing applications);
- a network layer coupled to interface with the one or more network devices ([0031] lines 12-16, network layer between the server and the small device, [0038] lines 19-21, HTTP or XML network layer);
- synchronization protocols to provide a synchronization protocol between the application device and the one or more network devices ([0143] lines 1-5,

synchronization protocols, lines 5-9, a user client synchronizes with a server (or some other devices) using an email protocol); and

- an interface layer coupled to communicate with the one or more applications and the synchronization layer to provide generic synchronization communications between the one or more applications and the synchronization layer ([0139], an application programming interface API to communicate with the documents (or applications) and the synchronization plug-in modules (synchronization layer, [0143] lines 1-5, SyncML and WebDAV synchronization protocols); wherein the messages between the one or more synchronization applications and the interface layer are independent of a protocol used between the interface layer and the synchronization protocol stacks (Ong, [0139], communications between the application layer and the API does use not a protocol and is independent of available synchronizing protocols such as SyncML and WebDAV);

Ong does not explicitly disclose a synchronization layer coupled to the network layer and the synchronization layer consists of synchronization protocol(s).

However, Ericsson discloses a synchronization layer coupled to the network layer and the synchronization layer consists of synchronization protocol(s) (section 1.1, fig. 1, SyncML I/F is the interface layer, SyncML adapter is the synchronization layer, coupled to HTTP/WSP/OBEX or the network layer).

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Ericsson to apply the framework of

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Ericsson in order to develop a synchronization method supporting a plurality of synchronization protocols as one described by Ong.

24. For claims 2 and 9, Ong-Ericsson substantially discloses the invention as in claims 1 and 8, Ong-Ericsson further discloses at least one of the one or more applications comprises a synchronization application (Ong, [0046] lines 7-10).

25. For claims 3 and 10, the claims are rejected as in claims 2 and 9. Ong-Ericsson further discloses the synchronization application is selected from a group consisting of Personal Information Manager (PIM) sync, contents distribution, and contents upload (Ong, [0005] lines 9-18, PIM, [0037], [0038], downloading and uploading synchronizations are possible).

26. For claims 4 and 11, the claims are rejected as in claims 1, 8. Ong-Ericsson further discloses the interface layer is an application programming interface (API) (Ong, [0139]).

27. For claims 5 and 12, the claims are rejected as in claims 1, 8. Ong-Ericsson further discloses the interface layer is protocol independent (Ong, [0139], an application programming interface API is not a protocol).

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28. For claims 6 and 13, the claims are rejected as in claims 1 and 8. Ong-Ericsson further discloses synchronization layer comprises a synchronization protocol stack (same rationale as in claim 1, synchronization layer contains a synchronization protocol stack such as SyncML and WebDAV, etc.).

29. Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ong-Ericsson, as applied to claims 15, and 21, in view of Stevenson et al. (US 2003/0014483, hereafter Stevenson)

30. For claims 19 and 25, the claim is rejected as in claims 15, 21. Ong-Ericsson further discloses the synchronization protocol stack is selected from a group consisting of SyncML and Web Distributed Authoring and Versioning (WebDAV) (Ong, [0143]).

Ong-Ericsson discloses other protocols for synchronization such as SOAP and epXML (Ong, [0143]). Ong-Ericsson does not disclose Information Content Exchange (ICE).

However, Stevenson discloses Information Content Exchange (ICE, [0107])

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Stevenson to implement a synchronization protocol stack consisting of SyncML, WebDAV, and ICE to provide more flexibility and functionality to the system.



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31. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ong-Ericsson, as applied to claims 5, 13, in view of Stevenson.

32. For claims 7 and 14, the claim is rejected as in claims 5, 13. Ong-Ericsson further discloses the synchronization protocol stack is selected from a group consisting of SyncML and Web Distributed Authoring and Versioning (WebDAV) (Ong, [0143]).

Ong-Ericsson discloses other protocols for synchronization such as SOAP and epXML (Ong, [0143]). Ong-Ericsson does not disclose Information Content Exchange (ICE).

However, Stevenson discloses Information Content Exchange (ICE, [0107])

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Stevenson to implement a synchronization protocol stack consisting of SyncML, WebDAV, and ICE to provide more flexibility and functionality to the system.

### ***Conclusion***

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

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HH

/Bunjob Jaroenchonwanit/  
Supervisory Patent Examiner, Art Unit 2152